

CLAIMS

1. A sheet steel roll assembly comprising a roll of sheet steel, the roll having an inner end region, a length of sheet steel wound around the inner end region to form a roll body having an outer surface, the roll having an outer free end region positioned adjacent a neighbouring region of the outer surface of the roll body and a magnetic force applicator coupled to the outer free end region and the roll body to maintain the outer free end region and the roll body in contact with one another.
2. An assembly as defined in claim 1 wherein the magnetic force applicator further comprises a first portion to receive at least one magnet element.
3. An assembly as defined in claim 2 wherein the first portion includes a housing to receive the magnet element therein.
4. An assembly as defined in claim 3 wherein the magnetic force applicator further comprises a second portion which extends outwardly from the first portion, the second portion dimensioned to be gripped by a user to install the magnetic force applicator in position against the free end region.
5. An assembly as defined in claim 4 wherein the housing has an open end through which the magnet element extends, so as to make direct contact with the free end region.
6. An assembly as defined in claim 4 wherein the housing is at least four sided.
7. An assembly as defined in claim 4 further comprising a retainer portion for retaining the magnet element in the housing portion.
8. An assembly as defined in claim 7 wherein the housing has a side wall and the retainer portion includes a threaded member which is threadably engaged with the side wall.
9. A magnetic clamp device for clamping a free end region of a roll of sheet steel against the roll of sheet steel, comprising a housing portion, at least one magnet element located in the housing portion, a handle portion extending from the housing portion, the magnet element being of sufficient magnetic strength to couple with both the outer free end region and the roll of sheet steel to draw the outer free end region and the roll into contact with one another, the handle portion being of sufficient length to permit a user to install the device on the outer free end region and to provide sufficient leverage to remove the magnetic clamp device therefrom.

10. A method for clamping the free end of a roll of sheet steel, comprising the steps of:

- providing a roll of sheet steel, the roll having an inner end region, a length of sheet steel wound around the inner end region to form a roll body having an outer surface, the roll having an outer free end region positioned adjacent a neighbouring region of the outer surface of the roll body;

- selecting one or magnets which are of sufficient magnetic strength to couple with both the outer free end region of the roll of sheet steel and the roll body to draw the outer free end region and the roll body into contact with one another solely by the magnetic strength of the selected one or more magnets; and

- coupling the selected one or more magnets with both the outer free end region of the roll of sheet steel and the roll body so that the outer free end region and the roll body are in contact with one another.

11. A method as defined in claim 10, further comprising the step of installing the one or more magnets in a first portion of a magnetic applicator.

12. A method as defined in claim 11, further comprising the step of providing the magnetic applicator with a second portion which extends outwardly from the first portion and is dimensioned to be gripped by a user to install the magnetic applicator in position against the outer free end region.

13. A method as defined in claim 12, further comprising the step of providing the first portion with a housing to contain the one or more magnets.

14. A method as defined in claim 13, further comprising the step of providing the housing with a retainer portion for retaining the one or more magnets in place.

15. A magnetic clamp device for clamping an outer free end region of a roll of ferromagnetic material against the roll of ferromagnetic material, comprising a housing portion, at least one magnet element located in the housing portion, a handle portion extending from the housing portion, the magnet element being of sufficient magnetic strength to couple with both the outer free end region and the roll of ferromagnetic material to draw the outer free end region and the roll into contact with one another, the handle portion being of sufficient length to permit a user to install the device on an outer free end portion and to remove the device therefrom, wherein the magnet element has a peripheral region, the first housing including at least one housing portion to extend along the peripheral region of the magnet element.

16. A device as defined in claim 15, the housing further comprising a pair of housing portions, each to extend along a corresponding peripheral region of the magnet element so as to substantially encircle the peripheral

region.

- 5 17. A device as defined in claim 16, each housing portion including a pair of ends, each end having a mounting flange to align with an adjacent mounting flange on the other housing portion, so that the mounting flanges may be secured to one another to fix the housing portions to the magnet element.
18. A device as defined in claim 17 wherein each of the mounting flanges includes a passage to receive a fastener there through.
- 10 19. A device as defined in claim 18 wherein each housing portion has a width that exceeds a corresponding dimension of the magnet.
20. A device as defined in claim 19, further comprising a lining portion to extend between the magnet element and the housing portions.
- 15 21. A device as defined in claim 20 wherein the lining portion is resilient and stretched over the peripheral region of the magnet.
22. A magnetic clamp device for clamping an outer free end of a roll of ferromagnetic material against the roll, comprising housing means, magnetic force generating means located in the housing means, handle means extending from the housing means, the magnetic force generating means being of sufficient magnetic strength to couple with both the outer free end region and the roll to draw the outer free end region and the roll into contact with one another, the handle means being of sufficient length to permit a user to install the device on the outer free end portion and to remove the device therefrom.
- 25 23. A device as defined in claim 22, wherein the magnetic force generating means includes at least one magnet element, the magnet element having a peripheral region, the housing means including at least one housing portion to extend along the peripheral region of the magnet element.
- 30 24. A device as defined in claim 23, the housing means including a pair of housing portions, each to extend along a corresponding peripheral region of the magnet element so as to substantially encircle the peripheral region of the magnet element.
- 35 25. A magnetic clamp device for clamping at least one first article to a ferromagnetic second article, comprising housing means, at least one magnet means located in the housing means, handle means extending from the housing means, the magnet means being of sufficient magnetic strength to hold the first article between the magnetic clamp device and the second article, the handle means being of sufficient

length to permit a user to install and to remove the device, the housing means including a pair of housing portions, each to extend along a corresponding peripheral region of the magnet element so as to substantially encircle the peripheral region of the magnet element, each housing portion including a pair of ends, each end having a mounting flange to align with an adjacent mounting flange on the other housing portion, so that the mounting flanges may be secured to one another to fix the housing portion to the magnet element.

26. A device as defined in claim 25 wherein each of the mounting flanges includes a passage to receive a fastener there through.

27. A device as defined in claim 26 wherein each housing portion has a width that exceeds a corresponding dimension of the magnet means.

28. A device as defined in claim 27, further comprising a lining portion to extend between the magnet means and the housing portions.

29. A device as defined in claim 28 wherein the lining portion is resilient and stretched over the peripheral region of the magnet means.